



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,236	01/17/2007	Katsuyuki Shiota	0666.2860000	4124
26111	7590	04/09/2008		
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.			EXAMINER	
1100 NEW YORK AVENUE, N.W.			GIMIE, MAHMOUD	
WASHINGTON, DC 20005			ART UNIT	PAPER NUMBER
			3747	
			MAIL DATE	DELIVERY MODE
			04/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,236	Applicant(s) SHIOTA ET AL.
	Examiner Mahmoud Gimie	Art Unit 3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

1) Responsive to communication(s) filed on 17 January 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 26 April 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-166/08)
 Paper No(s)/Mail Date 4/26/06

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: claim 1, line 5, "vale" should be replaced with --valve--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Handa et al. (JP-01364563A).

Handa et al. disclose a reverse rotation preventing mechanism for a diesel engine comprising: a camshaft (11) driven by a crankshaft through power transmission means; and cams provided on the camshaft (11) so as to drive an intake vale, an exhaust valve and a fuel injection pump (3), respectively, wherein the cam (10) for the fuel injection pump (3) is shaped so as to include a maximum radius portion (34, 24), a minimum radius portion (33, 23), and a middle stage portion (22, 32), and wherein the middle stage portion is radially larger than the minimum radius portion and disposed at a predetermined angle on the back side in the rotation direction from the maximum radius portion; see figures 5-7.

Regarding claim 2, wherein the height of the middle stage portion substantially corresponds to the height of a plunger of the fuel injection pump (3) when injection of the fuel injection pump driven by the cam is completed at the engine start.

Regarding claim 3, wherein the height of the middle stage portion is determined so that the middle stage portion is prevented from interfering with a rotation locus of an end of a connecting rod.

Regarding claim 4, wherein a boundary position between the middle stage portion and a small radius portion is disposed adjacent to a position for starting the opening process of the intake valve.

Regarding claim 5, wherein a boundary position between a portion where the radius is gradually reduced from the maximum radius portion (34, 24) and the middle stage portion (22, 32) is disposed adjacent to a position for starting the opening process of the exhaust valve.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references disclose cam actuated fuel pumps.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahmoud Gimie whose telephone number is 571-272-4841. The examiner can normally be reached on Monday-Friday between 7 a.m. -3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen K. Cronin can be reached on 571-272-4536. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MG/

/Mahmoud Gimie/
Primary Examiner, Art Unit 3747